Muncaster Environmental Planning Inc.

April 29, 2021

Ms. Jennifer Mondell Fraser, MCIP, RPP
Senior Land Development Planner & Acquisitions Manager
Blevins Developments Ltd.
6783 Wellington Road 34, RR 22,
Cambridge, ON
N3C 2V4

Dear Ms. Fraser:

RE: Environmental Impact Statement and Tree Conservation Report Update
The Burroughs Kanata
Southeast Portion of Taggart's Palladium Drive Kanata West Development

This report is an update to our revised March 23rd, 2015 Environmental Impact Statement and Tree Conservation Report for the southeast portion of Taggart's Kanata West Mixed Use Development. The approximately 3.2 hectare site is between the Feedmill Creek corridor and the Tanger Outlet Mall to the north and the Highway 417 corridor to the south, with Huntmar Drive to the east and the westbound off-ramp from Highway 417 to Palladium Drive to the west. For the purposes of this update, Huntmar Drive is considered in a north-south orientation.

The current site included the original farmhouse for this area and associated agricultural fields. The farmhouse and associated barns and other structures were removed in the 1990s. Mature Manitoba maples and a bur oak originally around the farmhouse remain in the central-west portion of the current site. A road crossing of Feedmill Creek was completed in 2014 to the current site (Map 1). By 2015, topsoil appeared to be removed from much of the east and central portions of the site and gravel access roads constructed.

I reviewed the 2015 report and confirm that the current site was covered by the 2015 report. This update provides an addendum for the southeast portion of the original Kanata West site, including an updated Species at Risk Assessment and an update on tree retention specific to the current site.

Proposed Development and Site Context

A mid-rise residential development is proposed for the site (Map 3). One-hundred and six units are proposed in each of four nine-story buildings. An amenity building is planned between two of the eight-story buildings. Five hundred and ninety-three parking spaces are proposed in a combination of surface and underground parking. Outdoor amenity areas, including community gardens, a bbq area,

playgrounds, walking trails, dog park, and a trek-fit circuit, are also proposed (Map 3). Access to the site will be from the north via the existing road crossing of Feedmill Creek and from the east off Huntmar Drive. The urban development will be on full municipal services, with stormwater to be treated with an oil and grit separator to provide water quality control at the enhanced level of protection, or 80% removal of total suspended solids. A dual drainage system is proposed for the water quantity component of stormwater management with on-site storage including street sags at low points within the roadway and sags at low points within the parking lots.

The retained Feedmill Creek corridor to the north of the site is a minimum of 70 metres wide, following the recommendation in the Carp River Watershed/Subwatershed Study (CRWSS) (Robinson, 2004). Due to the meandering nature of the channel within the protected corridor, the minimum distance between the north edge of the site and the channel is approximately 30 metres.

The site is designated *Mixed Use Centre* on Schedule B of the City`s Official Plan. No portions of the City's Natural Heritage System are shown for the site on the Schedule L3 overlay and no environmental constraints are identified on Schedule K. The Palladium Interchange Urban Natural Area, identified as Area 33 in the Urban Natural Area Environmental Evaluation Study (Muncaster and Brunton, 2005) is to the west of the site, west of Palladium Drive. The east edge of this Urban Natural Area is approximately 330 metres west of the west edge of the current site and will not be impacted by the proposed development.

There are no Areas of Natural and Scientific Interest or Provincially significant wetlands in proximity to the site, with the Kizell Drain the closest Provincially significant wetland, approximately 2.5 kilometres to the north of the site. No interior habitat, rare vegetation, recharge areas, wetlands, woodlands greater than 50 years of age, Areas of Natural and Scientific Interest or Centres of Ecological Significance were identified for the current site in the CRWSS (Robinson, 2004). No Category 1 or 2 Terrestrial Habitats are identified for the current site in the CRWSS. As indicated above, the CRWSS recommended an overall corridor width of 70 metres along Feedmill Creek to accommodate the meander belt recommendations and provide aquatic habitat protection.

Existing Conditions

To update the earlier work, a field survey was completed on September 22nd, 2020 from 10:20 to 12:55, under sunny skies, a light breeze, and an air temperature of 14° C.

Paterson (2020) describes the soil conditions as a topsoil layer overlying either a hard to very stiff brown silty clay or a fill layer up to 2.3 metres in thickness, with the fill underlain by the silty clay. Based on available geological mapping, Paterson (2020) concluded the bedrock consists of interbedded limestone and shale of the Verulam formation with an overburden thickness of 10 to 25 metres. The long-term groundwater level on the site is expected to be between 3 and 5 metres below the surface (Paterson, 2020).

Regenerating ground vegetation is common in the meadow habitat on disturbed land that dominates the site (Photos 1 and 2). Common species included red cover, white clover, white-sweet clover, brome grass, orchard grass, bird's-foot trefoil, evening primrose, wild carrot, wild grape, thicket creeper, common ragweed, common mugwort, blueweed, wormseed mustard, common milkweed, tall goldenrod,

New England aster, small white aster, European common reed, cow vetch, crown vetch, bittersweet nightshade, wild parsnip, bladder campion, daisy fleabane, field sow-thistle, and common mullein. Red raspberry and staghorn sumac shrubs are also common in areas. Fill is common in the meadow habitat and much of the topsoil appears to have been removed.

A few trembling aspens up to 38cm diameter at breast height (dbh) are in the meadow habitat in the southeast portion of the site (Photo 3). Fungal growth was extensive on the poplar trunks. Staghorn sumac shrubs are among the poplar trees. Trembling aspen and Manitoba maple stems up to 25cm dbh are also along portions of the north site boundary (Photo 4). Regenerating white cedar and Manitoba maple stems up to 10cm dbh are scattered in the west meadow habitat, along with serviceberry, red raspberry, and staghorn sumac shrubs.

Where the shrub coverage is greater than 25 percent, the vegetation community is identified on Map 1 as cultural thicket. In addition to the well-represented red raspberry and staghorn sumac, common buckthorn, tartarian honeysuckle, red-osier dogwood, and nannyberry shrubs are also present in the thicket habitat, along with regenerating Manitoba maple, white birch, and trembling aspen stems (Photo 7).

The two short north-south deciduous hedgerows in the central-west portion of the current site described in the 2015 report have been reduced to a single intermittent hedgerow. The very large sugar maple, that was considered to be in poor condition in 2013 with reduced leaf-out and broken limbs, has been removed. Manitoba maples, including a twin-stem example with the largest stem 75cm dbh, remain, in the intermittent hedgerow (Photo 6), along with a 50cm dbh bur oak (Photo 5, Map 1) and smaller trembling aspen and white ash trees. The bur oak appeared to be in good condition, but the Manitoba maples had many areas of reduced leaf-out and the ash had either no leaves or very few apparently live branches. Staghorn sumac shrubs are again common adjacent to the hedgerow trees and old foundations.

The Feedmill Creek corridor to the north of the site contains mature white cedar and white pine. Manitoba maple, green ash, and white elm are common, as are common buckthorn, red raspberry, staghorn sumac, speckled alder, and red-osier dogwood shrubs. Many plantings including white spruce and red maple, with white cedar, ash, and Manitoba maple regenerating stems also present.

No aquatic habitat potential was observed on or adjacent to the site outside of Feedmill Creek, which supports a diverse community of direct fish habitat. A roadside swale on the west side of Huntmar Drive, showing on geoOttawa mapping, was apparently filled in around 2015. Gravel access roads west from Huntmar Drive are along the north and east site edges, with a gravel parking area in the north-centre portion.

Photo 1 – Meadow habitat dominates the current site. This is the west and central portions of the site, with view looking west from Huntmar Drive

Photo 2 – Meadow habitat in the west portion of the site. View looking east to south end of intermittent deciduous hedgerow in the central-west portion of the site

Photo 3 – Scattered trembling aspen in the southeast portion of the meadow habitat. View looking northwest

Photo 4 – Manitoba maple and dead white ash in the north-central portion of the current site. View looking west

Photo 5 –Mature bur oak in the intermittent deciduous hedgerow in the central -west portion of the current site. View looking west

Photo 6 –Mature Manitoba maple in the intermittent deciduous hedgerow. View looking southwest

Photo 7 –Cultural thicket (left) and meadow (right) habitat in the central -west portion of the site. View looking east

Photo 8 –Feedmill Creek corridor to the north of the current site. View looking northwest

Species at Risk and other Potential Significant Natural Heritage Features

The potential Species at Risk in the general area were reviewed, including those added in recent years. No Species at Risk were observed in the vicinity of the current site during the original field surveys and none was observed during the September 2020 update survey. MNRF's Make a Map: Natural Heritage Areas website was reviewed again on September 21st, 2020. This site allows for a search of Threatened and Endangered species covered by the 2008 *Endangered Species Act*, as well as other species of interest. A search was conducted on the 1 km square including the current site and adjacent areas (18VR21-66). No Species at Risk were reported for this square.

The breeding birds listed in the Ontario Breeding Bird Atlas for the 10 km square 18VR21 identified eastern whip-poor-will, eastern meadowlark, barn swallow, bank swallow and bobolink as Species at Risk in the overall 10 km square. Eastern meadowlark and bobolink utilize larger grasslands such as hayfields. Although the site is dominated by meadow habitat, the extent of woody vegetation is too high, the site too disturbed, and the meadow habitat too small, at less than 2.5 hectares, and lacks interior habitat for the grassland species to utilize the meadow habitat for nesting. No suitable structures or other habitats are on or adjacent to the site for barn swallow, bank swallow, or chimney swift. There is no suitable habitat on or adjacent to the site for eastern whip-poor-will, which requires larger wooded areas with open patches, and/or open woodlands or alvar.

The potential Species at Risk in the City of Ottawa were also reviewed. Many endangered and threatened species have historically been reported in the overall City, including butternut, American ginseng, eastern prairie fringed-orchid, wood turtle, spiny softshell, Blanding's turtle, musk turtle, Henslow's sparrow, loggerhead shrike, little brown myotis, northern long-eared bat, olive hickorynut, chimney swift, eastern meadowlark, barn swallow, bank swallow, bobolink, eastern whip-poor-will, bald eagle, golden eagle, cerulean warbler, least bittern, lake sturgeon and American eel.

No larger trees with cavities are present on the current site to provide potential summer maternity colonies for bats. No Blanding's turtle observations are known within two kilometres of the site (the required distance in the General Habitat Description), with observations in the Carp River downstream of Richardson Side Road and in the Carp Road and Highway 417 area. The is no suitable wetlands for turtle habitat adjacent to the channel proper of Feedmill Creek in the portion of the corridor to the north of the site. Thus, all site disturbances will be more than 30 metres from any Category 2 Blanding's turtle habitat if Feedmill Creek in this area is considered suitable turtle habitat.

The habitat requirements of the above species along with those listed as special concern were reviewed. The only Species at Risk considered to have the potential to be on or adjacent to the site is butternut which is found in a variety of habitats in Kanata and Stittsville. No butternuts were observed on or adjacent to the current site during the original or 2020 surveys. The closest butternuts observed as part of an overall Feedmill Creek corridor detailed review for butternuts competed in the summer of 2020 were approximately 80 metres east of Huntmar Drive.

Feedmill Creek Corridor

Direct fish habitat is present in Feedmill Creek, which supports a diversity of cool and warm-water fish communities. Feedmill Creek would also represent significant valleylands. The boundaries of the Feedmill Creek corridor were assessed and reviewed in the 2015 report. As indicated above, no site disturbances will be within 30 metres of the channel and all development will take place outside of the approved corridor. Paterson (2020) observed no signs of sloughing or undercutting in the Feedmill Creek corridor during an update site review on March 16th, 2020. As no signs of erosion were observed and the slope face of the corridor is grass covered with scattered trees, Paterson (2020) concluded that the original limit of hazard lands setback limits remains applicable.

Significant Woodlands

There are no forests on or adjacent to the site and thus there is no potential for significant woodlands.

Significant Wildlife Habitat

The potential for significant wildlife habitat was assessed using the guidance in OMNR (2010) and MNRF (2015). Potential components which may lead to a designation of significant wildlife habitat include seasonal concentration areas of animals, rare vegetation communities or specialized habitat for wildlife, habitat for species of conservation concern and animal movement corridors.

No field observations which would trigger a significant wildlife habitat designation with respect to the ELC communities present were noted. For example, the cultural habitats do not support waterfowl stopover or staging areas, colonial nesting bird breeding habitat, or other examples of seasonal concentration areas. No rare vegetation communities as noted in MNRF (2015), provincially rare species, evidence of animal movement corridors, or rare or specialized habitats were observed. The site does not appear to support raptor wintering areas and forests are not present. No seeps or springs were observed in the vicinity of the current site. No potential bat hibernacula or maternity colonies in mixed or deciduous forests or suitable turtle nesting or wintering areas were observed.

Tree Retention and Protection

No tree retention was identified on or adjacent to the current site in the 2015 Tree Conservation Report. Other than the mature bur oak in the central-west portion of the site, no prime candidate trees for retention (due to species and/or condition) were observed on the current site. There are no co-owned trees or adjacent trees with critical root zones extending onto the site due to adjacent roadways and generally open Feedmill Creek corridor to the north.

Where possible and the existing trees warrant, tree retention should be considered along the north site edge among the outdoor amenity areas such as the community gardens and trek fit circuit (Map 3). The associated critical root zones of any tree retention are to be protected with sturdy temporary fencing at least 1.3 metres in height. Signs, notices, or posters are not to be attached to any tree. No grading, heavy machinery traffic, stockpiling of material, machine maintenance and refueling, or other activities that may cause soil compaction are to occur within three metres of the critical root zone of the trees to be retained and protected. The root system, trunk, and branches of the trees to be retained are to be

protected from damage. If roots of retained trees are exposed during site alterations, the roots shall be immediately reburied with soil or covered with filter cloth, burlap or woodchips and kept moist until the roots can be buried permanently. A covering of plastic should be used to retain moisture during an extended period when watering may not be possible. Any roots that must be cut are to be cut cleanly to facilitate healing and as far from the tree as possible. Exhaust fumes from all equipment during construction is not to be directed towards the canopy of any retained trees.

All of the supports and bracing for the protective fencing should be placed outside of the protected area and should be installed in such a way as to minimize root damage. Also, since the desired effect of the barrier is to prevent construction traffic from entering the tree's critical root zone, the barrier should be kept in place until all site servicing and house construction has been completed.

Other Recommended Mitigation Measures

The following is a updated mitigation measures are recommended:

1. The extent of exposed soils is to be kept to a minimum at all times. Re-vegetation of exposed, non-developed areas with native species is to be achieved as soon as possible;

2. Prior to April 1st (if all site preparation is not completed by April 1st) in order to prevent potential movement of sensitive wildlife habitat into the work area, including turtles, a properly installed and maintained temporary exclusion barrier (for example silt fencing) is to be erected around the work area prior to site preparation and construction activities;

3. Once the work area is surrounded by properly dug in fencing and prior to further site alterations, the work area is to be searched for sensitive wildlife and such wildlife relocated to the Feedmill Creek corridor to the north;

4. The objective with respect to erosion and sediment controls will be to ensure that the surface water runoff leaving the site is not degraded with respect to water quantity or quality. Erosion and sediment control will focus on best management practices; including proper installation and maintenance of silt fencing around the work area perimeter;

5. Where groundwater is to be removed, the groundwater will be pumped into a proper filter mechanism, such as a sediment trap or filter bag, prior to release to the environment;

6. Seepage barriers such as silt fencing, straw bale check dams and other sediment and erosion control measures will be installed as required to OPSD requirements in any temporary drainage ditches and around disturbed areas during construction and stockpiles of fine material. These control measures must be properly maintained to maximize their function during construction;

7. The contractors and other on-site workers are to be aware of potential Species at Risk in the vicinity of the site including butternut, and aware of appropriate measures to reduce human-wildlife conflict during the work. Appendix 1 of the City of Ottawa's Protocol for Wildlife Protection during Construction (August, 2015) describes these species. The project biologist for this project is Bernie Muncaster (613-748-3753). Any Species at Risk sightings are to be

immediately reported to the project biologist and the Ministry of Environment, Conservation and Parks and activities modified to avoid impacts until further direction by the Ministry;

8. As recommended in City of Ottawa (2015) before beginning work each day, wildlife is to be checked for by conducting a thorough visual inspection of the work space and immediate surroundings. See Section 2.5 of City of Ottawa (2015) for additional recommendations on construction site management with respect to wildlife. Any turtles or other sensitive wildlife in the work area are to be relocated to the Feedmill Creek corridor to the north. Species at Risk are to be relocated only by staff authorized to handle these species. Animals should be moved only far enough to ensure their immediate safety. See Appendix 1 and the links in Section 4 of City of Ottawa (2015) for suggestions on how to effectively relocate turtles and snakes;

9. To discourage wildlife from entering the work areas during construction, the site should be kept clear of food wastes and other garbage, and proper drainage provided to avoid accumulation of standing water, which could attract amphibians, birds, and other wildlife to the work areas;

10. Plantings of native vegetation as part of the urban development is recommended to provide local wildlife habitat, climate, and aesthetic benefits. Potential native species to plant include nannyberry, elderberry, and dogwood shrubs, along with sugar maple, red maple, basswood, balsam fir, red oak, and white spruce trees. Sourcing native species from local seed sources is strongly recommended to ensure adaptability and longevity. Only locally appropriate native species are to be used for landscaping adjacent to natural features or buffer zones. Due to clay soils, tree planting should be limited to trees with low water demand. Tree species to avoid in this situation include poplars, willows, and Manitoba maple;

11. Municipal by-laws and provincial regulations for noise will be followed and utilities will be located as required in the vicinity of the site prior to construction; and,

12. Waste will be managed in accordance with provincial regulations. The contractor will have a spill kit on-hand at all times in case of spills or other accidents.

Conclusion

There are no changes in the conclusions of the 2015 report. Significant natural heritage features, as defined in the Provincial Policy Statement, are to the north of the site in the Feedmill Creek corridor, but not on the site itself. All site disturbances will be a minimum of 30 metres from the Creek. No Species at Risk are anticipated to be impacted. A 50cm dbh bur oak is in the central-west portion of the proposed development. With anticipated grading and other urban servicing requirements and its location it not considered practical for tree retention. The other trees are generally dominated by examples in poor condition and/or species usually not recommended for retention, including Manitoba maple.

A hotel and restaurant were the original proposed development for the current site. Other though urban development type has changed, the potential impacts for the area are assessed as similar to those of the original report and I confirm that the environmental impact assessment has not changed since production of the 2015 report, including no recommended areas of potential tree retention on the site. Update

mitigation measures are detailed above to reflect 2021 standards. It is important that these mitigation measures are properly implemented.

References

City of Ottawa. 2015. Protocol for Wildlife Protection during Construction. August, 2015. 14 pp & Append.

Muncaster, B.W. and D.F. Brunton. 2005. Urban Natural Areas Environmental Evaluation Study. Prepared for the City of Ottawa.

Ontario Ministry of Natural Resources. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. March 2010. 233 pp.

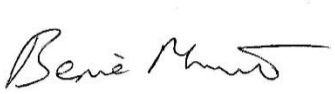
Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. January, 2015. 38 pp.

Paterson Group. 2020. Geotechnical Investigation - Proposed Commercial Development, 8555 Campeau Drive, Ottawa. Report: PG5287-1. March 30, 2020. 23 pp & append.

Robinson Consultants Inc. 2004. Carp River Watershed/Subwatershed Study. December, 2004 Prepared for the City of Ottawa. Project No. 00056. 224 pp & append.

Please call with any questions on this EIS and TCR update.

Yours Sincerely,
MUNCASTER ENVIRONMENTAL PLANNING INC.



Bernie Muncaster, MSc.
Principal

\Kanata West SE EISTCRupdate

Vegetation Communities

- A Cultural Meadow
- B Cultural Thicket
- C Deciduous Hedgerow

Legend

- Site
- Vegetation Communities

Approx. Scale 1:2,000

0 25 50 75 METRES

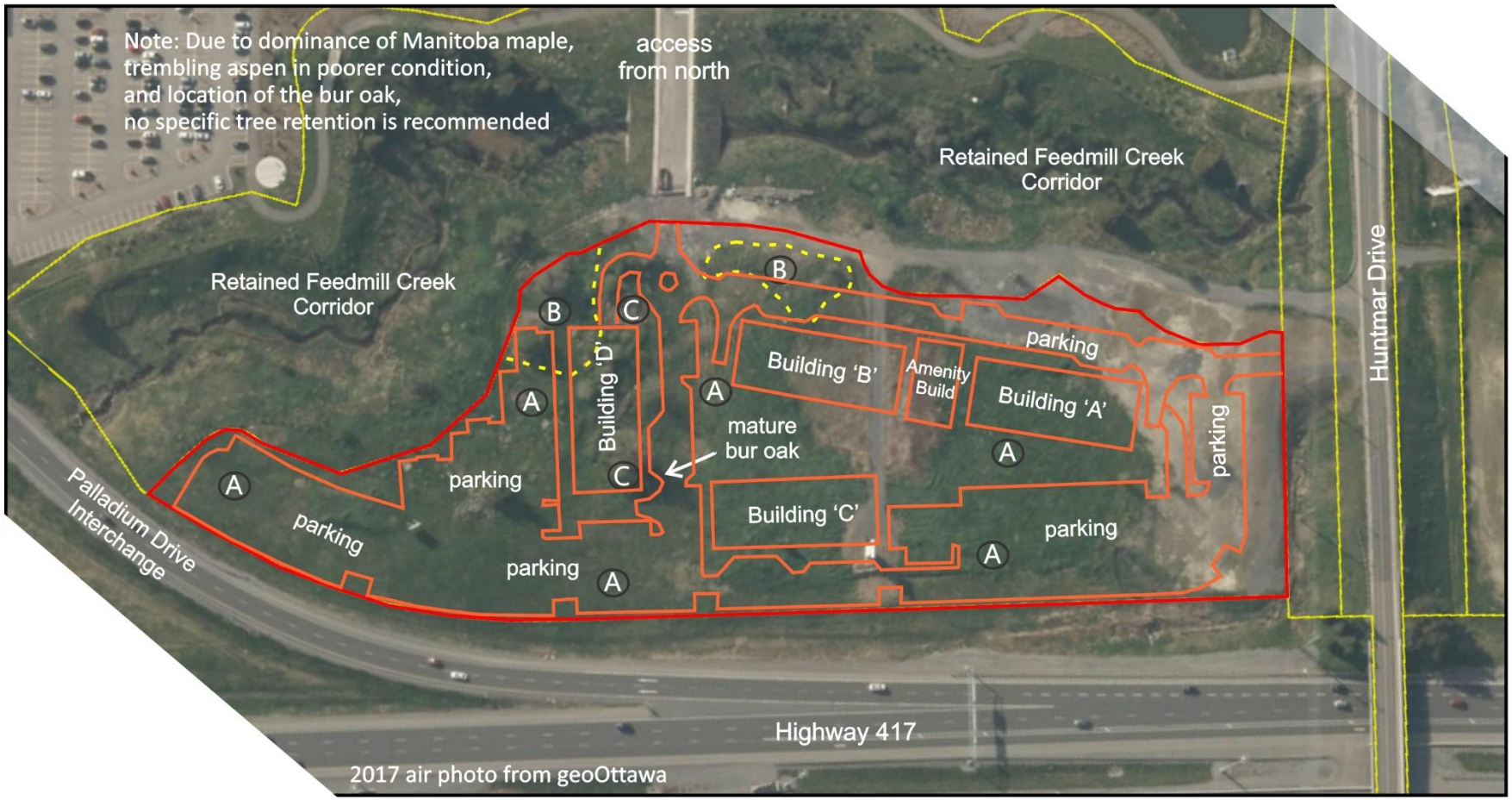
Map 1	FILE: 20 - 29	September 29, 2020

Prepared for: Blevins Developments Ltd.

Prepared by: Muncaster Environmental Planning Inc.

CURRENT VEGETATION

The Burroughs
Kanata West, City of Ottawa



Vegetation Communities

- A Cultural Meadow
- B Cultural Thicket
- C Deciduous Hedgerow

Legend

- Site
- Vegetation Communities

Approx. Scale 1:2,000

0 25 50 75 METRES

Map 2	FILE: 20 - 29	April 29, 2021

Prepared for: Blevins Developments Ltd.

Prepared by: Muncaster Environmental Planning Inc.

PROPOSED DEVELOPMENT

The Burroughs
Kanata West, City of Ottawa

MAP 3 – SITE PLAN